

Abstract of the Disclosure

Planishing or stress relief in a welded joint (34) is accomplished with a hammer (12) and a backing bar (26). The hammer is applied on a first side (1) to a first surface (31) of the structure (30). To indicate the proper position of the backing bar, a first magnet (20; 320) is associated with the hammer, and a magnetic sensor arrangement (24; 224; 300) is located on the other side (2) of the structure. In one embodiment, the sensor arrangement is a second magnet (24) which is held in place by the magnetic field (40) of the first magnet. In a second embodiment, the sensor includes a line array (262) of individual sensors, each associated with an indicator of a line array (264) of indicators. In a third embodiment, the sensor includes a line array (300) of two magnetic sensors, which are coupled to a differential indicator (324).